

REMARKS

Claims 1-31 are pending in the present application. No claims have been added by this Amendment. No claims have been cancelled by this Amendment. Therefore upon entry of this present Amendment claims 1-31 are still pending. Claims 1-31 have been rejected.

Reconsideration of this application, in view of the foregoing amendments and the following remarks, is respectfully requested.

Claim Rejections - 35 USC § 103

Claims 1-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Awater et al. (U.S.Pat-7046649) in view of Kim (U.S.Pub-20020107033). Applicants traverse this rejection.

The Examiner has opined regarding claim 1 that

Awater fails to specifically disclose an antenna switching function communicatively coupled to the first and second antennas capable of providing diversity capabilities; and an arbitration function, communicatively coupled to the antenna switching function and the first and second wireless telecommunications functions, and adapted to directly control the first and second wireless telecommunications functions and access to the first and second antennas by the first and second wireless telecommunications functions according to a defined prioritization scheme. However Kim teaches an antenna switching function communicatively coupled to the first and second antennas capable of providing diversity capabilities (fig.1 and 4, paragraph 0011, 0024-0025); and an arbitration function, communicatively coupled to the antenna switching function and the first and second wireless telecommunications functions (fig.1 and 4, paragraph 0011, 0024-0025), and adapted to directly control the first and second wireless telecommunications functions and access to the first and second antennas by the first and second wireless telecommunications functions according to a defined prioritization scheme (fig.1 and 4, paragraph 0011, 0024-0025). Therefore, it would have been obvious to one having ordinary skill in

the art at the time the invention was made to apply the teaching of Kim to Awater to provide a method for improving the compatibility receivers and cellular telephones.

In order to sustain a rejection under 35 U.S.C. §103(a) there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. "Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. To establish a *prima facie* case of obviousness based on a combination of elements disclosed in the prior art, the Board must articulate the basis on which it concludes that it would have been obvious to make the claimed invention. In practice, this requires that the Board "explain the reasons one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious. This entails consideration of both the "scope and content of the prior art" and "level of ordinary skill in the pertinent art" aspects of the Graham test. *IN RE LEONARD R. KAHN*, 441 F.3d 977 (Fed. Cir. 2006). Inferences and creative steps that a person of ordinary skill in the art would employ can be used. The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results. *KSR INT'L CO. v. TELEFLEX INC.* 127 S. Ct. 1727 (2007). The Examiner has failed to show that the combination of the cited references would yield predictable results, *inter alia*, Kim teaches only a diversity antenna for a GPS receiver with does not transmit in a telecommunication system.

Applicants stated in the previous response that the antenna switch function of the instant application allows the two **transceivers** to select either of 2 or more antennas. Awater does not teach this restriction; in fact, the transceivers of Awater are statically fixed to an antenna (emphasis added).

The Examiner cites Kim as teaching "an antenna switching function communicatively coupled to the first and second antennas capable of providing diversity capabilities (fig.1 and 4, paragraph 001 1, 0024-0025). Kim provides antenna to a GPS receiver as a second GPS diversity antenna. This fails to provide

a solution to one of ordinary skill in the art. Applicants wish to point out paragraph [0022] on page 2 of Kim:

FIG. 3 shows a second, preferred embodiment of the invention. This embodiment requires the addition of GPS diversity antenna 28. Instead of switching off the input signal to GPS receiver 14 during the transmit time slot of cellular transceiver 16, the antenna input circuit of GPS receiver 14 is switched to diversity antenna 28. GPS diversity antenna 28 is not a primary antenna and not critical in this application, so it can be placed at the side, rear or bottom of the phone using a linear, slot or patch antenna.

Applicants have stated in the instant application that spatial diversity is not a useful approach. Kim cites spatial diversity but the diversity antenna is for a GPS receiver. There is no transmission occurring through the second GPS antenna of Kim. Applicants fail to see how Kim can be used to articulate a predictable use of prior art elements according to their established functions as required to establish a *prima facie* case of obviousness under the standards articulated by the Supreme Court in *KSR INT'L CO. v. TELEFLEX INC.* 127 S. Ct. 1727 (2007).

In Figure 1 of the instant application, (104) 802.11 **transceiver**, *if you will*, is connected to the antenna switching circuit (116), and the Bluetooth function (106) **transceiver**, *if you will*, is also connected to the antenna switching logic (116). The first (112) and second (114) antenna are connected to the antenna switching circuit, not the transceiver as is shown in Awater's Fig. 1. In some embodiments, the antenna switching circuit is operable to allow the 802.11 transceiver to be directly connected to either antenna (112) or antenna (114), and the Bluetooth transceiver is connected to the other antenna. The reason for this is to allow for switched diversity which is a part of the 802.11 standard. Awater alone or in combination with Kim does not allow for switched diversity for the 802.11 transceiver (emphasis added).

See claim 2. “The device of claim 1, wherein either or both of the first or second wireless telecommunications functions may require simultaneous **(transmission and reception)** access to both the first and second antennas” (emphasis added).

Additionally, *inter alia*, there is a difference in how the interoperability device of Awater (106) and the arbitration function (118) of the instant application. The difference is that arbitration function uses a probabilistic approach to decide on which device is allowed to transmit. Embodiments of the instant application does NOT try and schedule the 802.11 packets within the blank spaces of HV1 voice packets.

Kim does not provide for any arbitration function using a probabilistic approach. Paragraph [0019] on page 2 of Kim cites that “[w]hen cellular transceiver 16 transmits, switch 34 disconnects GPS receiver 14 from antenna 30, so the input to GPS receiver 14 is completely isolated from antenna 30.” Examiner cites paragraphs 0024-0025 of Kim as teaching “arbitration function, communicatively coupled to the antenna switching function and the first and second wireless telecommunications functions, and adapted to **directly control the first and second wireless telecommunications functions** and access to the first and second antennas by the first and second wireless telecommunications functions according to a defined prioritization scheme (emphasis added). The timing diagram for switching on and off the diversity antenna to the GPS receiver fails to teach an arbitration function for the simultaneous operation of disparate and potentially conflicting wireless **telecommunication** technologies.

Thus, Awater alone or in combination fails to teach an arbitration function, communicatively coupled to the antenna switching function and the first and second wireless telecommunications functions, and adapted to directly control the first and second wireless telecommunications functions and access to the first and second antennas by the first and second wireless telecommunications functions according to a defined prioritization scheme. Claims 2-13 are dependent, directly or indirectly, upon claim 1 and thus also have this limitation

The same argument may be made for claim 14 and the claims depending upon it.

Applicants would like to also point to the continued citation of Kim fig. 1 and 4, paragraph 0011, 0024-0025 for “simultaneous **transmissions** by the first and second wireless **telecommunications** functions” of claims 30 and 31 How can one provide transmissions from a GPS receiver? Applicants fail to see how Kim can be used to articulate a predictable use of prior art elements according to their established functions. *KSR INT’L CO. v. TELEFLEX INC.* 127 S. Ct. 1727 (2007).

Applicant believe this application and the claims herein to be in a condition for allowance and respectfully requests a Notice of Allowance or timely Advisory Action. Please charge any additional fees, or credit overpayment to Deposit Account No. 20-0668. Should the Examiner have further inquiry concerning these matters, please contact the below named attorney for Applicants.

Respectfully submitted:

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